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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,321	12/06/2004	Werner Berg	101215-164	6123
27387 7590 10/02/2007 NORRIS, MCLAUGHLIN & MARCUS, P.A. 875 THIRD AVE 18TH FLOOR NEW YORK, NY 10022			EXAMINER BARHAM, BETHANY P	
			ART UNIT 1615	PAPER NUMBER
			MAIL DATE 10/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/501,321	BERG, WERNER	
	Examiner	Art Unit	
	Bethany P. Barham	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/09/05</u>  | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### *Summary*

Receipt of IDS filed on 03/09/05 is acknowledged. Claims 1-15 are pending.

Claims 1-15 are rejected.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5, 9, and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 5 refers to the covering material of claim 1 wherein convertible substances are contained through microorganisms or enzymes. Claim 1 does not teach convertible substances, simply pH reducing substances and substance mixtures, so is the convertible substance part of the substance mixture or does it reduce pH it is not clear from the claims and further the instant specification is not clear on this matter either (pg. 3, paragraph 5).

Claims 9 and 15 refer to active substances "combined with foils, which are predominantly permeable for hydrogen-ions only", the instant specification does not teach that 'foils' are "predominantly permeable for hydrogen-ions only", but rather teaches that "a membrane can be located which are permeable for hydrogen-ions ( $H^+$ ) but not for the acid residual-ions" (pg. 6, paragraph 4). Nowhere in the instant specification is a membrane defined to be a foil or a foil described as predominantly permeable for hydrogen-ions only.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The instant claims are so broad in nature and the terms undefined, that searching the claims as written results in various types of art. Since the claims are so undefined as to leave interpretation open to many different art areas, all art found to match the instant claims will be applied.

Further, terms in the instant claims like "pH-value reducing substances", "convertible substances", "organic residual substances", etc in the claims are not properly defined in the instant specification and it is unclear as to whether these

substances are combined together in the inventive covering or are each separate covering inventions.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 9-12, and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2003/0012810 A1 ('810).

The limitations of claims 1-7, are taught:

- '810 teaches a breathable absorbent article comprising lactic acid producing micro-organisms together with silica and/or zeolite, clay, etc, which deliver high performance breathability and high protection level while delivering effective odor control, especially odors associated with bodily fluids (abstract, claims 1, 7-8, 19, and 22-24). Claims 26 of '810 teaches that the article may be a diaper, incontinent pad or human or animal waste management device or interlabial pad.

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- '810 teaches the micro-organisms included in the article change the pH of the composition to an acidic environment (pH 4-4.5) (pg. 1, [0010]).
- '810 teaches a liquid substance such as urine, perspiration, blood, etc (pg. 1, [0006]).
- '810 teaches including acids such as carboxylic acids (such as citric, lauric, boric, adipic, etc), clays, zeolites, silicas, cyclodextrin, starches, etc (pg. 9, [0086]).

The limitations of claims 9-12, and 14-15 are taught:

- '810 teaches a backsheet that is breathable and permits the transfer of water vapour and air through it, but prevent the transport of liquid (pg. 11, [0116]).
- '810 teaches including silicas, zeolites, clays, ion exchange resins, etc (claims 8 and 23).
- '810 teaches bonding the lactic acid producing microorganisms to the cellulose tissue layers with a hot melt adhesive (pg. 10, [0108]).

Claims 1-5, 9-12, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,008,028 ('028).

The limitations of claims 1-5, 9-12 and 14 are taught:

- '028 teaches compositions and methods of use of constructed microbial mats for bioremediation comprising cyanobacteria and purple autotrophic bacteria and an organic nutrient source in a laminated structure (abstract). The mats are used to convert hazardous materials into small molecules such as carbon dioxide and water and for treating polluted or contaminated sites (col. 1, lines 15-25) and to

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cover soil, water, industrial effluents, waste water treatment (col. 13, line 62-col. 16, line 12).

- The mat also contains inert materials such as organic materials such as a mesh made from coconut hulls, ground corn cobs, limestone, clays, etc (col. 8, lines 38-50, claims 1-6).
- Example 1 teaches that the organic nutrient substrate is ensiled grass clippings which contain lactic acid (or can alternatively have acetic acid) that has a microbial mixture added to it, such as Oscillatoria and purple autotrophic bacteria.
- '028 teaches that a support structure (coconut hulls, ground corn cobs, limestone, etc) can be annealed to the microbial mat and that benonite is the preferred clay (hydrophobising agent as taught in the instant specification) (claims 1-3 and 6).

The limitations of claims 5-8 are taught:

- '028 teaches that the cyanobacteria supply carbohydrates and proteins (col. 12, lines 42-44).
- '028 teaches that treated leachate contains nutrients such as polysaccharides, proteins and microbes (col. 18, lines 62-67).

Claims 1-8, and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,214,985 ('985).

The limitations of claims 1-8 are taught:

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- '985 teaches the treatment of sewage with bacteria *L. plantarum* and a carbohydrate so that the pH drops to below 4 (abstract, claim 1). '985 teaches that the lactic acid produced by *L. plantarum* is neutralized with ammonia to form ammonium lactate (claim 21, col. 2, lines 32-39). '985 teaches that the lactic acid produced inhibits growth and causes death of the vast majority of bacteria found in sludge (col. 12, line 65-col. 13, line 3).
- '985 teaches that the carbohydrates include glucose, sucrose, etc (claims 18-20 and 23). '985 teaches that the *L. plantarum* is capable of fermenting all common sugars and is able to digest molasses in order to produce lactic acid (col. 2, lines 43-52).

The limitations of claims 10-13 are taught:

- '985 teaches admixing the bacteria with carbohydrate (col. 2, lines 6-10).
- '985 teaches that the *L. plantarum* inoculated into heat sterilized tomato juice broth at 120°C (col. 3, lines 1-4).

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bethany Barham whose telephone number is (571)-272-6175. The examiner can normally be reached on Monday to Friday; 8:30 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone




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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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